STRUCTURES G-343E-H

The G-343E-H structures are each single gated reinforced concrete box culverts with associated upstream weir box, located on STA-5 Interior Levee 2, which separates treatment cells 2A from 2B, in Hendry County, Florida. Three of the four structures (G-343E,F,G) are also equipped with aluminum slide gates.

PURPOSE

Together these structures control flows from STA-5 treatment cell 2A to treatment cell 2B.

OPERATION

The G-343E-H structures are box culverts equipped with passive weir structures. Three of the four structures (G343E,F,G) are also equipped with aluminum slide gates which will be operated when necessary to dewater Cell 2A or to transfer seepage water and supplemental water supplies from cell 2A to cell 2B.

FLOOD DISCHARGE CHARACTERISTICS

(Assuming completion of all ECP components)

	Design	During SPF *
Discharge Rate	159 cfs	314 cfs
Headwater Elevation	15.73' NGVD	18.24' NGVD
Tailwater Elevation	14.92' NGVD	17.55' NGVD
Type Discharge	Controlled submerged for all STA-5 stages equal to or greater than 14.0' NGVD	

* Standard Project Flood Conditions

DESCRIPTION OF STRUCTURE

Culverts

Type: Reinforced concrete box culvert with associated upstream 10' X 10' weir box

Number of barrels: 1

Size of barrels: 8 feet high X 10 feet wide

Length of barrels: Approximately 60 feet

Flow line elevation: 5.5 feet NGVD (Invert Elevation)

Service bridge elevation: 16.67 feet NGVD

Weirs

Number: 1

Type: 10 feet X 10 feet box

Size: 30 feet in length

Crest Elevation: 14.0 feet NGVD

Control: Passive

Gates (G-343 E, F and G only)

Number: 1

Type: Self-contained, downward opening, aluminum slide gates

Size: 3 feet high X 5 feet wide

Crest Elevation: 14 feet NGVD (fully closed)

Crest Elevation: 11 feet NGVD (fully open)

Lifting Mechanism Type: Single rising stem, manually operated by hand wheel

Date Acceptance into Service: October 1999 *

* Temporary operations authorized for 14-day period in response to Hurricane Irene. Routine operations began June 2000.

ACCESS: Access to these structures is along the STA-5 north perimeter levee or via a locked gate located at the southern terminus of Blumberg Road

HYDRAULIC AND HYDROLOGIC MEASUREMENTS

Water Level: upstream and downstream remote digital recorder at G-343 F only

Gate Position Recorder: No

DEWATERING FACILITIES (per gate): None